IN THE CLAIMS

Please renumber the Claims pages from pages "32-33" to --41-42--.

IN THE ABSTRACT:

Please renumber the Abstract page from page "34" to --43--.

REMARKS

The specification has been amended to provide sequence identifiers. Applicants' amendments do not introduce new matter. The Examiner has requested that a Sequence Listing be provided. Applicants submit this Amendment and Response to provide as a separate part of the disclosure, a "Sequence Listing" pursuant to 37 C.F.R. §§ 1.821-1.825. Applicants submit herewith in paper copy and on floppy disk the Sequence Listing in computer readable form. The contents of the paper and computer readable copies are the same and include no new matter.

Claims 1 - 16 are pending and stand rejected. The Examiner has made a number of rejections. We list them here in the order in which they are addressed:

(1) Claims 9 - 16 are rejected under the judicially created doctrine of double patenting over claims 1-9 of U.S. Patent No. 5,874,087. Claims 9 - 16 are also rejected under the judicially created doctrine of double patenting over claims 22-28 of U.S. Patent No. 5,958,422.

(2) Claims 4 - 6 and 9 - 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(3) Claims 1, 2, 7 - 10, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,316,931.

(4) Claims 1 - 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,316,931.

Applicants believe that the following remarks traverse the Examiner's rejection of the claims. These remarks are presented in the same order as they appear above.

1. CLAIMS 9 - 16 AND DOUBLE PATENTING

The Examiner rejected Claims 9-16 under the judicially created doctrine of double patenting over claims 1-9 of U.S. Patent 5,874,087 stating that the claims are not patentably distinct over the claims of the '087. The Applicants respectfully disagree. However, in order to further the business interests of the Applicants, a Terminal Disclaimer will be provided when the remaining rejections have been withdrawn.

The Examiner rejected Claims 9-16 under the judicially created doctrine of double patenting over claims 22-28 of U.S. Patent 5,958,422 stating that the claims are not patentably distinct over the claims of the '422. The Applicants respectfully disagree. However, in order to further the business interests of the Applicants, a Terminal Disclaimer will be provided when the remaining rejections have been withdrawn.

II. CLAIMS 4-6 and 9-16 ARE PATENTABLE UNDER 35 U.S.C. 112

The Examiner rejected Claims 4-6 and 9-16 as being indefinite. Claims 4-6 are dependent on Claim 1. Claims 10-16 are dependent on independent Claim 9. The Examiner states that Claims 4-6 and 15-16 recite the limitation "derived from." The Examiner then states that "the limitation "derived from" is indefinite because there is no indication of the way it is patterned on the original and thus the metes and bounds are unclear." Claims 15-16 of the present application do not recite the limitation "derived from", however, Claims 12-14 do recite these words. Therefore, the Applicants direct the following remarks to Claims 4-6 and 12-14. The Applicants respectfully disagree. However, in order to further the business interests of the applicant and while reserving the right to prosecute the original or similar claims in the future, Claims 4-6 and 12-14 have been rewritten. The Claims are now definite and should pass to allowance.

The examiner has rejected Claim 9 for having "insufficient antecedent basis" for the claim terms "said nucleotide sequence" and "said plant viral genome." The Applicants thank the Examiner for pointing this out. Claim 9 has been rewritten. The Claim is now definite and should pass to allowance.

III. THE CLAIMS ARE NOT ANTICIPATED

A. The Claims are not Anticipated by U.S. Patent 5,316,931

The Examiner has rejected Claims 1, 2, 7-10, 15 and 16 under 35 U.S.C. 102(e) as anticipated by U.S. Patent 5,316,931. The Applicants respectfully disagree. "[T]he rule is that the burden of persuasion is on the PTO to show why the applicant is not entitled to a patent." *In re Epstein*, 31 USPQ2d 1817, 1825 (Fed. Cir. 1994) (Plager, J. joined by Cowen, J., concurring.)(citing to *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) (Plager, J., concurring); *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967), *cert. denied*, 389 U.S. 1057(1968)). "[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant . . . . If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

It is respectfully submitted that the Exmainer has not satisfied the PTO burden. Specifically, the present application has a priority date of April 16, 1991. The '931 patent has a filing date of July 31, 1992. The Examiner has not shown that the '931 patent is entitled to an earlier priority date - this is particularly relevant since the July 31, 1992 filing was a *continuation-in-part*, which indicates that new matter was added. The Examiner has the burden in the first instance to show that the disclosure (now used as a basis for rejection) was in an earlier application in the lineage. Until the Examiner makes such a showing, there is no shifting of the burden to the applicant.

IV. THE CLAIMS ARE NOT OBVIOUS

A. The Claims are patentable over U.S. Patent 5,316,931

The Examiner has rejected Claims 1-16 under 35 U.S.C. 103 as being obvious over U.S. Patent 5,316,931. The MPEP states that in order for a reference to be prior art under 35 U.S.C. 103 it must meet the same criteria as 35 U.S.C. 102 prior art. MPEP § 2141.01. In other words, publications that are not prior art under 35 U.S.C. 102 are not prior art under 35 U.S.C. 103. As demonstrated in the previous section, the Examiner has not established that the '931 patent is entitled to a priority date such that it qualifies as prior art. Moreover, the

Examiner cannot merely make an assumption in this regard. *See In re Rijckaert*, 28 USPQ2d 1955 at 1956 (Fed. Cir. 1993)("[T]he examiner's assumptions do not constitute the disclosure of the prior art."); *See id.* at 1957 ("[W]hen the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears."). Indeed, the Federal Circuit has made it clear that "[b]road, conclusory statements regarding the teachings of multiple references, standing alone, are not 'evidence.'" *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614 (Fed. Cir. 1999). Therefore, the Examiner's unsupported statements about one skilled in the art selecting a "commonly known" virus also do not satisfy the standard.

CONCLUSION

The Applicants believe that the arguments and claim amendments set forth above traverse the Examiner's rejections and, therefore, request that these grounds for rejection be withdrawn for the reasons set above. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned collect at 617.252.3353.

Dated: June 4, 2002

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APPENDIX I
MARKED-UP VERSION OF AMENDED CLAIMS
PURSUANT TO 37 CFR § 1.121 (c)(1)(ii)

The Following is a version of the claims pursuant to 37 C.F.R. § 1.121(c)(1)(ii) with markings showing the changes made herein to the previous version of record of the claims.

4. The plant of Claim 3, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from Foot and Mouth disease virus.

5. The plant of Claim 3, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from human immune deficiency virus.

6. The plant of Claim 3, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from human rhinovirus.

9. A method of producing modified plant virus particles, comprising:

a) providing i) plant material selected from the group consisting of intact plant, plant tissue, plant cells and protoplasts, ii) a plant virus having a plant viral genome, and iii) a nucleotide sequence coding for a foreign peptide;

b) introducing said nucleotide sequence coding for a foreign peptide at that part of said plant viral genome that codes for an expressed portion of the viral coat protein, so as to create modified viral nucleic acid;

c) infecting said plant material with said modified viral nucleic acid, so as to create an infected plant material; and

d) harvesting assembled plant virus particles from said infected plant material.

12. The plant of Claim 11, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from Foot and Mouth disease virus.

13. The plant of Claim 11, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from human immune deficiency virus.

14. The plant of Claim 11, wherein said nucleotide sequence coding for a foreign peptide [viral antigen] is [derived] from human rhinovirus.